/\*EXPERIMENT NO.5 : AGGREGATE FUNCTIONS\*/

/\*1.List total loan\*/

SELECT SUM (AMOUNT) FROM BORROW;

/\*2.List total deposit\*/

SELECT SUM (AMOUNT) FROM DEPOSIT;

/\*3.List total loan taken from KAROLBAGH branch\*/

SELECT MAX(AMOUNT) FROM BORROW WHERE BNAME ='KAROLBAGH';

/\* 4.List total deposit of customers having account date later than 1-Jan-96\*/

SELECT SUM(AMOUNT) from deposit where adate>'1995-03-01';

/\* 5.List total deposit of customers living in city NAGPUR\*/

SELECT SUM(D1.AMOUNT) FROM DEPOSIT D1 , CUSTOMER C1 WHERE C1.CITY = 'NAGPUR' AND C1.CNAME = D1.CNAME;

/\*6.List maximum deposit of customer living in Bombay\*/

SELECT MAX(D1.AMOUNT) FROM DEPOSIT D1 , CUSTOMER C1 WHERE C1.CITY = 'Bombay' AND C1.CNAME = D1.CNAME;

/\* 7.List total deposit of customer having branch in BOMBAY\*/

SELECT SUM (AMOUNT) from deposit,BRANCH where city='BOMBAY';

/\* 8.Count total number of branch cities\*/

SELECT COUNT(DISTINCT (CITY)) FROM BRANCH ;

/\*9.Count total number of customers cities\*/

SELECT count(city) from CUSTOMER;

/\* 10.Give branch names and branch wise deposit\*/

SELECT BNAME , SUM(AMOUNT) FROM DEPOSIT GROUP BY BNAME;

/\*11.Give city wise name and branch wise deposit\*/

SELECT C1.CITY , SUM(D1.AMOUNT) FROM CUSTOMER C1 , DEPOSIT D1 WHERE D1.CNAME = C1.CNAME GROUP BY C1.CITY;

/\*12.Give the branch wise loan of customer living in NAGPUR\*/

SELECT BNAME , SUM(AMOUNT) FROM BORROW,CUSTOMER WHERE city ='NAGPUR' GROUP BY BNAME;

/\*13.Count total number of customers\*/

SELECT count(cname) from CUSTOMER;

/\*14.Count total number of depositors branch wise\*/

SELECT BName, count (\*)from DEPOSIT, CUSTOMER where deposit.CNAME = CUSTOMER.CNAME group by BNAME

/\*15.Count total number of depositors branch wise\*/

SELECT BName, count (\*)from DEPOSIT, CUSTOMER where deposit.CNAME = CUSTOMER.CNAME group by BNAME

/\*16.Give maximum loan from branch VRCE\*/

SELECT MAX(AMOUNT) FROM BORROW WHERE BNAME ='VRCE';

/\*17.Give the number of customers who are depositors as well as borrowers\*/

SELECT COUNT(DISTINCT (CNAME)) FROM CUSTOMER WHERE CNAME IN ((SELECT CNAME FROM DEPOSIT) INTERSECT (SELECT CNAME FROM BORROW));

/\*EXPERIMENT NO.6 : SET OPERATIONS\*/

/\*1. List all the customers who are depositors but not borrowers.\*/

SELECT CNAME FROM DEPOSIT MINUS SELECT CNAME FROM BORROW;

/\*2. List all the customers who are both depositors and borrowers\*/

SELECT CNAME FROM DEPOSIT UNION (SELECT CNAME FROM BORROW);

/\*3. List all the depositors having deposit in all the branches where Sunil is having Account\*/

SELECT D1.CNAME FROM DEPOSIT D1 WHERE D1.BNAME IN (SELECT D2.BNAME FROM DEPOSIT D2 WHERE D2.CNAME = 'SUNIL' );

/\*4. List all the customers living in city NAGPUR and having branch city BOMBAY or DELHI\*/

SELECT C1.CNAME FROM CUSTOMER C1,DEPOSIT D1, BRANCH B1 WHERE C1.CITY = 'NAGPUR' AND C1.CNAME = D1.CNAME AND D1.BNAME = B1.BNAME AND B1.CITY IN ('BOMBAY','DELHI');

/\*5. List all the depositors living in city NAGPUR\*/

SELECT Distinct(CUSTOMER.CNAME) from CUSTOMER,DEPOSIT WHERE City='NAGPUR';

/\*6. List all the depositors living in the city NAGPUR and having branch in city BOMBAY\*/

SELECT C1.CNAME FROM CUSTOMER C1,DEPOSIT D1, BRANCH B1 WHERE C1.CITY = 'NAGPUR' AND C1.CNAME = D1.CNAME AND D1.BNAME = B1.BNAME AND B1.CITY IN ('BOMBAY');

/\*7. List the branch cities of Anil and Sunil\*/

SELECT B1.CITY FROM DEPOSIT D1, BRANCH B1 WHERE D1.BNAME = B1.BNAME AND D1.CNAME IN ('SUNIL' ,'ANIL');

/\*11. List all the cities where branches of Anil and Sunil are locate\*/

SELECT B1.CITY FROM BRANCH B1 WHERE B1.BNAME IN (SELECT D1.BNAME FROM DEPOSIT D1 WHERE D1.CNAME IN ('ANIL','SUNIL'));

/\*EXPERIMENT NO.7 : JOIN OR CARTESIAN PRODUCT\*/

/\*1.Give name of customers having living city BOMBAY and branch city NAGPUR\*/

SELECT D1.CNAME,D1.BNAME,C1.CNAME,C1.CITY,B1.CITY,B1.BNAME FROM DEPOSIT D1,CUSTOMER C1,BRANCH B1 WHERE C1.CITY = 'BOMBAY' AND B1.CITY = 'NAGPUR' AND D1.CNAME = C1.CNAME AND D1.BNAME = B1.BNAME;

/\*2.Give names of customers having the same living city as their branch city\*/

SELECT distinct(customer.CNAME), BRANCH.CITY FROM BRANCH, customer WHERE BRANCH.city = customer.city;

/\*3.Give names of customers who are borrowers as well as depositors and having city NAGPUR.\*/

SELECT C1.CNAME FROM CUSTOMER C1,DEPOSIT D1,BORROW B1 WHERE C1.CITY='NAGPUR' AND C1.CNAME=D1.CNAME AND D1.CNAME = B1.CNAME;

/\*4.Give names of borrowers having deposit amount greater than 1000 and loan amount greater than 2000.\*/

SELECT BR1.CNAME, BR1.AMOUNT, D1.CNAME, D1.AMOUNT FROM BORROW BR1,DEPOSIT D1 WHERE D1.CNAME = BR1.CNAME AND D1.AMOUNT > 1000 AND BR1.AMOUNT > 2000;

/\*5.Give names of depositors having the same branch as the branch of Sunil\*/

SELECT D1.CNAME FROM DEPOSIT D1 WHERE D1.BNAME IN (SELECT D2.BNAME FROM DEPOSIT D2 WHERE D2.CNAME = 'SUNIL');

/\*6.Give names of borrowers having loan amount greater than the loan amount of Pramod\*/

SELECT BR1.CNAME,BR1.AMOUNT FROM BORROW BR1 WHERE BR1.AMOUNT > ALL (SELECT BR2.AMOUNT FROM BORROW BR2 WHERE BR2.CNAME = 'PRAMOD');

/\*7.Give the name of the customer living in the city where branch of depositor Sunil is located.\*/

SELECT C.CNAME FROM CUSTOMER C WHERE C.CITY IN (SELECT B.CITY FROM BRANCH B WHERE B.BNAME IN (SELECT D.BNAME FROM DEPOSIT D WHERE D.CNAME='SUNIL'));

/\*8.Give branch city and living city of Pramod\*/

SELECT B1.CITY , C1.CITY FROM BRANCH B1,CUSTOMER C1, DEPOSIT D1 WHERE C1.CNAME = 'PRAMOD' AND C1.CNAME = D1.CNAME AND D1.BNAME = B1.BNAME;

/\*9.Give branch city of Sunil and branch city of Anil\*/

SELECT B1.CITY FROM DEPOSIT D1, BRANCH B1 WHERE D1.BNAME = B1.BNAME AND D1.CNAME IN ('SUNIL' ,'ANIL');

/\*10.Give the living city of Anil and the living city of Sunil\*/

SELECT C1.CNAME, C1.CITY FROM CUSTOMER C1 WHERE C1.CNAME = 'ANIL' OR C1.CNAME = 'SUNIL';